

Serial No. 10/767,678

Atty. Doc. No. 2002P10618US

Amendments to the Claims:

Please amend the claims as shown. Applicants reserve the right to pursue any of the original unamended claims presented in this application at a later date in one or more continuing applications.

1. (currently amended) A steam turbine comprising:
a rotor having a plurality of rotor blades;
a plurality of guide vanes spaced apart from the blades; and
a casing shell formed by a plurality of casing segments, at least one of the casing segments provided with at least one integrated cooling channel, wherein the rotor and the plurality of guide vanes are arranged inside the casing shell, and a cooling medium comprising steam flows through the cooling channel.

2. (previously presented) The steam turbine as claimed in claim 1, wherein the cooling channel is positioned inside a wall of a corresponding casing segment, the cooling channel offset toward a inner surface of said wall relative to a center plane.

3. (currently amended) ~~The A steam turbine as claimed in claim 1,~~ comprising:
a rotor having a plurality of rotor blades;
a plurality of guide vanes spaced apart from the blades; and
a casing shell formed by a plurality of casing segments, at least one of the casing segments provided with at least one integrated cooling channel, wherein the rotor and the plurality of guide vanes are arranged inside the casing shell, wherein the cooling channel is oriented substantially in the longitudinal direction of the rotor.

4. (previously presented) The steam turbine as claimed in claim 1, wherein the rotor blades and guide vanes form a plurality of blade/vane rows, the cooling channel extending over at least two successive blade/vane rows, as viewed in the longitudinal direction of the rotor.

5. (previously presented) The steam turbine as claimed in claim 1, wherein the cooling channels are combined to form a common cooling system which is integrated in the casing shell.

Serial No. 10/767,678

Atty. Doc. No. 2002P10618US

6. (previously presented) The steam turbine as claimed in claim 5, the cooling system comprises a plurality of branch channels oriented in the circumferential direction of the corresponding casing segment.

7. (previously presented) The steam turbine as claimed in claim 5, wherein a plurality of guide vanes are attached to the casing shell, wherein each of the guide vanes is cooled via an integrated branch channel connected to the cooling system.

8. (previously presented) The steam turbine as claimed in claim 1, wherein the cooling channel is connected, via a number of overflow openings to a flow space for a flow medium, the flow space surrounded by the casing shell.

9. (previously presented) The steam turbine as claimed in claim 8, wherein the respective cooling channel and the overflow openings are dimensioned such that in the operating state the coolant is at a slightly higher pressure than the flow medium.

10. (previously presented) The steam turbine as claimed in claim 9, wherein the cooling channel has at least one overflow opening for each turbine stage.

11. (previously presented) The steam turbine as claimed in claim 1, wherein the cooling channel is supplied with steam as coolant.

12. (currently amended) A method for operating a steam turbine having a casing shell formed by a plurality of casing segments, comprising:

providing at least one cooling channel integrated into a casing segment or a casing shell;

at least partially admitting coolant via the cooling channel to the a casing shell delimiting the space for a flow medium; and

flowing the flow medium a coolant through the cooling channel,

wherein the coolant is steam.

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Serial No. 10/767,678

Atty. Doc. No. 2002P10618US

13. (previously presented) The method as claimed in claim 12, wherein the coolant is guided in a combined cooling system formed by the cooling passages.

14. (previously presented) The method as claimed in claim 12, wherein the coolant, entering from the cooling passage is admixed to the flow medium.

15. (previously presented) The method as claimed in claim 14, wherein the coolant is fed into the flow medium at a pressure which is more than the pressure prevailing in the flow medium at the corresponding mixing location.

16. (previously presented) The method as claimed in claim 12, wherein the coolant is guided at a pressure which, as viewed in the longitudinal direction of the rotor, is matched to the pressure prevailing locally in the flow space of the flow medium.

17. (previously presented) The steam turbine as claimed in claim 2, wherein the cooling channel is oriented substantially in the longitudinal direction of the rotor.

18. (previously presented) The steam turbine as claimed in claim 2, wherein the rotor blades and guide vanes form a plurality of blade/vane rows, the cooling channel extending over at least two successive blade/vane rows, as viewed in the longitudinal direction of the rotor.

19. (previously presented) The steam turbine as claimed in claim 2, wherein the cooling channels are combined to form a common cooling system which is integrated in the casing shell.

20. (previously presented) The steam turbine as claimed in claim 2, wherein the cooling channel is connected via a number of overflow openings to a flow space for a flow medium, the flow space surrounded by the casing shell.